Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
2497/102

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on February 28, 2006

Signature _____

Typed or printed name Timothy M. Murphy

Application Number	Filed
09/719,958	March 23, 2001

First Named Inventor: George Leonard Powell

Art Unit	Examiner
2635	Brown, Vernal U.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 33,198

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

_____
Signature

Timothy M. Murphy
Typed or printed name

(617) 443-9292
Telephone number

February 28, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of 1 forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Powell	Att'y Docket:	2497/102
Serial No:	09/719,958	Art Unit:	2635
Date Filed:	March 23, 2001	Examiner:	Vernal U. Brown

Customer No.: 02101

Invention: **Anti-Collision Tag Apparatus and System**

CERTIFICATE OF MAILING

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Timothy M. Murphy

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Following a Final Office Action dated November 29, 2005, Applicant submits the present Request for Formal Review, by a panel of examiners, of the legal and factual basis of the rejections pending in the present case, in accordance with the Pre-Appeal Brief Conference Pilot Program.[1]

Applicants believe that the issues are well-posed for appeal, and request formal review prior to appeal on the following grounds:

I. Background Synopsis of Subject Matter

The independent claims of the instant application relate to a radio frequency identification system/method in which interrogation pulses are sent out to the remote

[1] Official Gazette of the United States Patent and Trademark Office, vol. 1296, Number 2, (July 12, 2005).

tags. These tags respond according to the protocol of the invention, to enable individual tags to be identified.

II. Synopsis of Status of the Case

Claims 1-23 are pending in the application. In the latest office action of November 29, 2005, claims 1, 4-6, 8-17 and 23 are rejected under 35 USC 103(a) as being unpatentable over Denne (US 4 691 202) in view of Meier (US 6 323 566) and further in view of Walter (US 5 856 788). Claims 2-3 and 7, which depend from claim 1, are rejected over these three references and, in the case of claims 2-3, further in view of Wood, Jr. (US 6 466 771), and in the case of claim 7, further in view of Pidwerbetsky (US 6 046 683).

Claims 18-22 are rejected in the Final Office Action under 35 USC 103(a) as being unpatentable over Dodd (US 5 399 073) in view of Walter (US 5 856 788) and further in view of Palmer (US 5 942 977).

III. Issue for Review Prior to Appeal:

A *prima facie* obviousness rejection is improper when claim limitations are not found in any of the cited prior art references.

As set forth in MPEP §§ 2143[2] and 2143.03,[3] the cited prior art references must teach or suggest all claim limitations before a *prima facie* case of obviousness can be made. In all of the pending claims, the length of an interrogation signal portion adapts depending

[2] MPEP § 2143: "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." (Emphasis added.)

[3] MPEP § 2143.03: "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). ..."

on responses *to that portion* received from tags. None of the cited prior art, however, teaches this feature of the invention.

The invention relates to a system/method which enables individual tags to be identified with one interrogation signal. This interrogation signal has different portions for each bit (or bit sequence) of a tag identification word. The interrogation signal evolves in response to the responses received so that a single interrogation signal enables an individual tag to be identified.

The non-identified tags are placed into a quiescent (deactivated) mode. The interrogation signal itself causes the tags to change into this state, and this simplifies the procedure for placing tags into the quiescent mode.

In particular, each interrogation signal portion starts out as a short duration pulse. If a response is received to the short duration interrogation signal portion, the portion can end (without converting to the longer duration pulse), and the interrogation signal can proceed to interrogation of the next bit (or bit sequence). This provides an efficient and high speed identification of individual tags.

The operation of the system of the invention is most easily understood from Figure 3 of the application. The first portion "A" of the interrogation signal is of short duration because a response is received, indicating that there is a tag responding with a value 0 for the corresponding bit of its identification word. Because the portion "A" has not been extended to the long duration signal, all tags with a value 1 will be deactivated.

The second portion "B" of the interrogation signal is of long duration because no response was received to the initial short duration pulse. This indicates that there is no tag responding with a value 0 for the corresponding bit of its identification word.

The third portion "C" of the interrogation signal is of short duration because a response is received to the initial short duration pulse. This indicates that there is a tag responding with a value 0 for the corresponding bit of its identification word.

The full interrogation signal will identify a single tag by this process, with all other tags having been deactivated. Thus, each tag can be identified in turn using a single interrogation signal, which comprises a plurality of portions.

The features providing this operation are all in the independent claims. For example, claim 1 includes (emphasis added):

"the transceiver comprising means for sending an interrogation signal comprising a plurality of portions, wherein *each portion of the interrogation signal has two possible signal formats, in the form of pulses having different durations*".

"*the format used for a given interrogation signal portion is determined by the transceiver in dependence on modulated responses from the tags to said given interrogation signal portion*". [This defines the adaptive nature of the portions, which will be long or short depending on the responses received.]

"each portion ... is used to simultaneously interrogate the tags to identify, in response to modulated signals provided by the tags in response to the predetermined bit or bit sequence, the presence of a tag or tags having a given value of the identification word at the predetermined bit or bit sequence"

"each tag is deactivated when not having said given value of the identification word at the predetermined bit or bit sequence". [This defines the deactivation of tags. For example, if there is a tag with a 0 at a particular position in the identification word, then all tags with a 1 in that position are deactivated, as explained above in connection with portion B of the interrogation word of Figure 3.]

The independent method claims, claims 10 and 18, are equally clearly directed to the method as explained above.

In the latest office action of November 29, 2005, independent claim 1 is rejected under 35 USC 103(a) as being unpatentable over Denne (US 4 691 202) in view of Meier (US 6 323 566) and further in view of Walter (US 5 856 788). It is noted that objections based on Denne and Walter and other references seem to have been overcome in the responses to the previous five Office Actions. The office action mailed 29 November 2005 introduces the Meier reference.

The examiner has recognized that Denne and Walter fail to disclose pulses of an interrogation signal having different durations. Meier discloses the use of different length pulses to encode different values; *however*, Meier fails to disclose that the length of an interrogation signal portion should adapt in length depending on responses received from tags to that portion.

Thus, none of the prior art relied upon teaches or suggests that the interrogation signal can be made up of portions which can adopt one of two possible lengths in dependence of responses received *to that portion.*

This feature provides the highly efficient interrogation scheme as explained above.

None of the cited documents discloses the adaptive nature of the duration of the interrogation signal portions.

Given the above, it is submitted that the Examiner's rejection of this application is untenable, as has been consistently argued by the Applicants, and were this application to proceed to a full Appeal before the Board of Appeals and Interferences, the Examiner would clearly be reversed.

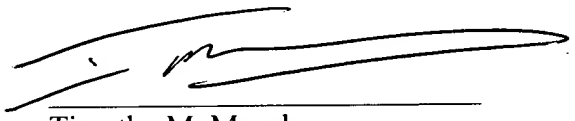
The arguments presented in the responses to each of the five office actions and two advisory actions associated with this application are also maintained.

IV. Conclusion

Neither the Meier reference nor any of the other cited references disclose that an interrogation signal portion adapts in length depending on responses received from tags *to that portion*. Thus, it is respectfully submitted that a *prima facie* case of obviousness cannot be properly made or sustained based on the plurality of references relied upon by the Examiner.

Therefore, allowance of all claims is respectfully requested.

Respectfully submitted,



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